

There's a lot of unanswered questions and theories as to how supermassive black holes got to be so large so early after the big bang. I'm suggesting that because of the rapid rotation of black holes (close to the speed of light), even if their resting mass may not be that large, their relativistic mass is. Einstein's special relativity suggests that an objects' mass goes up as it's speed approaches the speed of light-it is the relativistic mass. This is the mass that we can measure through the astronomical observations of the black holes. Since we know for a fact that some of these black holes rotate so fast, it's pretty obvious that the relativistic mass is significantly larger than their resting mass. Therefore what we detect as a black hole of for example 100 million solar masses may in fact have significantly less resting mass and instead have a speed very close to the speed of light. It is easier to imagine such a black hole forming early after the big bang than devising a more esoteric mechanism of formation.